



## *Florida Department of Transportation*

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### **ESTIMATES BULLETIN 13-xx**

### **ROADWAY DESIGN BULLETIN xx-xx**

### **STRUCTURES DESIGN BULLETIN xx-xx**

### **CONSTRUCTION MEMO xx-xx**

DATE: June 6~~17~~, 2013 DRAFT

TO: District Design Engineers, District Construction Engineers

FROM: Duane Brautigam, Director, Office of Design  
David Sadler, Director, Office of Construction

COPIES TO: Bruce Dana, Rudy Powell, Robert Robertson, Michael Shepard, Bob Crim, Greg Davis,  
Trey Tillander, Kurt Lieblong, Richard Massey, Sherry Valdes, Stanley Youmas, Missy  
Hollis, Cheryl Hudson, Chester Henson, Denise Broom, Jimmie Prow

SUBJECT: Replacement of Computation Books with Plan Summary Boxes

### **BACKGROUND**

Computation Books, aka “comp books”, have been used for many years to document quantities, by location for each pay item on a project. These books are also used by construction inspectors to document quantity changes and related notes as a project progressed. Alternatively, some pay items were documented within the plans on summary tables. The summary table information varied; only selected tables detailed quantities by location. While both methods contained similar information, computation books were not a part of the contract bid documents. The State Construction Office began to seek a means of streamlining the final estimates process.

Recently, an increasing number of bidders have been requesting computation book information prior to submitting their bids. To address bidder’s needs, as well as to consolidate the quantity documentation, a team was established to address both computation books and summary boxes. The result was a recommendation to include all necessary information within the plans, and to eliminate the separate computation book.

Existing plan summary boxes have been reviewed and updated to include appropriate space for each pay item’s quantity, by location. Space was also included for separate design and construction

remarks. New plan summary boxes were created as needed, so that every pay item has a default plan summary box.

To assist designers with the preparation of the summary boxes, a new software application is available: **Linked Data Manager (LDM)** for Excel to MicroStation data transfer. This tool will include an option to automate the creation of the summary boxes from data stored in a Quantity Manager database and then linking the summary boxes to the MicroStation design file.

**Comment [A1]:** The automated process is going to be a function within LDM.

**Comment [A2]:** Updated from Denise 6-6-13.

## IMPLEMENTATION PLAN

The implementation plan seeks to balance the bidder's need for quantity information with the designer's need to avoid duplication of work (both comp book and plan summary boxes). Fortunately, the computation books are normally prepared at the end of the design process.

**July to October 2013 lettings:** NO IMPACT- Projects scheduled for these letting dates are at 100% plans or in contracts phase. Do not make any changes to these projects. Do not attempt to duplicate information in both the comp book and plan summary boxes.

**October 2013 to June 2014 lettings:** Designer may begin the use of new plan summary boxes; comp book forms will still be acceptable for items not using the new plan summary boxes. Note: As of the issue date for this bulletin, most of the projects scheduled for these letting dates are in the 60-90% plans phase, when comp book preparation would normally begin.

**July 2014 lettings and later:** Quantity calculations for all future projects should use plan summary boxes.

**Exceptions:** New comp books should not be started after January 1, 2014. If a comp book was started prior to January 2014, the District Design Engineer will determine on a project-by-project basis whether to allow the comp book to continue, or whether the project should be updated to include plan summary boxes. A statewide end to comp books will be determined at a later date.

**Comment [A3]:** Is this a good date?

**Comment [A4]:** Is this the correct person to make this decision?

**Comment [A5]:** Not a definite date now, but designers need to know that comp book support will be discontinued in the future.

**Quantity calculations:** Shapes used to determine length or area may be referenced by shape number, (Area ID), and location. The Area ID should be clearly labeled in the shape file, QTDSRD##, i.e. "Area ID = 12345". DO NOT include point-by-point shape descriptions. Quantities based on estimated values may be noted in the Design Notes column, i.e. based on 110 lbs per square yard-in, based on 3 each per mile, or based on 30 signs x 40 days for phase 1. Detailed instructions for documenting quantities will be provided in the Basis of Estimates.

**Comment [A6]:** Show example with shape number.

**Comment [A7]:** Input from Denise.

**Design Support Calculations:** Calculations completed in MathCad, Excel, or other format should be saved with the project support files, in either the source format or .pdf format. These files, along with the Excel files for the summary boxes, should be located in a single directory for ease of access. This directory should be named "Calculations" and be located under the associated discipline in the project

[directory](#). DO NOT attach the support calculations to the bid letting package. Detailed instructions for saving files will be included in the CADD Production Criteria Handbook.

**Comment [A8]:** 6/5/13 conversation: Additional text pending from Denise to detail location of directories.

**Handbooks & Manuals:** Handbooks and Manuals will be updated by the responsible office. While new plan summary box instructions will need to be provided, existing comp book projects will be supported throughout the contract life. Some of the changes include:

**Plans Preparation Manual (PPM)-** Volume 1: Update comp book references throughout.  
Volume 2: Update 2014 edition with new plan summary box exhibits.

Volume 2, Section 3.6 will be updated as follows:

- The Transport Summary of Pay Items will remain after the Key Sheet (the proposal level summary)
- The Roadway Summary of Quantities will remain after the Typical Section.
- The Roadway Summary of Quantities will be numbered SQ-1, SQ-2, etc.
- A statement will be added to indicate that "Summary of Quantities Boxes should be placed in pay item order."

**Comment [A9]:** Updated following DRDE input/meeting on 6/17.

**Basis of Estimates Manual (BOE)-** Chapter 8: add instructions for the use of the new plan summary forms. Chapters 11-20: For each pay item group, add references to new plan summary boxes. Maintain existing comp book references.

**Construction Project Administration Manual (CPAM)-** add instructions for working with plan summary boxes. Maintain existing comp book instructions.

**CADD Production Criteria Handbook-** ~~add instructions for using Quantity Manager Data Transfer and Linked Data Manager.~~ [update to reflect new summary box and directory naming requirements.](#)

**Comment [A10]:** What is the name of new transfer application?  
6/17/13 – The transfer application, in this case LDM, is not specified in the CPCH. We will however update the language to reflect the changes for using the new summary boxes and directory naming conventions. DJB

[Structures IDS and Cell library- remove "Estimated Quantity Boxes" from current cells. Update IDS to match new procedure, and include copies of the updated cells.](#)

**Structures Design Manual, Volume 2-** remove "Estimated Quantity Boxes" *Examples*.  
Update instructions on quantity documentation and calculations to match the new procedure .

**Comment [A11]:** Reworded 6/18/2013

**Other publications-** Districts are responsible for updating their own web pages, handbooks, and procedures, as necessary.

**Lump Sum Projects:** Complete the plan summary boxes with quantities by location for each item of work, similar to traditional pay item project. DO NOT include the pay item number and total quantity. For example, Roadway guardrail is summarized by location from station A to B as 250', station C to D as 300', and station E to F as 500'; do not provide pay item number 536-1-1 or the total quantity.

**SMART Plans:** Guidelines for SMART plans are still under review. Additional information will be published as it becomes available.

**Comment [A12]:** Keep or delete until further information is available?

**Scope of Services:** The Consultant Scope of Services (the contract between the Department and Consultant Designers) will be updated to remove references to the comp book preparation. In the interim, the increased work of the plan summary boxes will be offset by the reduced work of the computation book. No adjustment should be made to the designer's number of hours.

## TRAINING

Training will be completed through multiple webinars for the groups noted below:

**Designers /CADD Users-** The Engineering CADD Systems Office (ECSO) will provide webinars to demonstrate the use of the new applications for data transfer, along with the new plans summary boxes. [A webinar is schedule for June 19, 2013. To Register, see the ECSO web page at http://www.dot.state.fl.us/ecso/downloads/GoToMeetingTraining/GoToMeetingWebinars.shtm](http://www.dot.state.fl.us/ecso/downloads/GoToMeetingTraining/GoToMeetingWebinars.shtm)

**Reviewers/Estimators/Project Managers-** The Specifications and Estimates Office will provide webinars to demonstrate the use of the new plans summary boxes, and to ensure the consistent documentation of quantities by location. [A webinar is scheduled for July 10, 2013. To register, see the Office of Design's Training web page at http://www.dot.state.fl.us/officeofdesign/Training/EngineeringAcademy/Calendar.shtm](http://www.dot.state.fl.us/officeofdesign/Training/EngineeringAcademy/Calendar.shtm)

**Contractors/Construction Engineering Inspectors (CEIs)-** The Construction Office will provide webinars to demonstrate the use of the LDM application to update notes and quantities for as-built plans and final estimates. [A webinar is schedule for July 24, 2013. To register, see the Construction Office's web page at http://www.dot.state.fl.us/construction/training/Training.shtm](http://www.dot.state.fl.us/construction/training/Training.shtm)

**Comment [A13]:** Updated link 6/17.

**Comment [A14]:** Updated date and llink.

Dates and times for additional webinars will be announced through the Contact Database and posted on the internet web pages for each of the offices.

We appreciate the cooperation of all offices during the transition period. We hope that the Consistent, Predictable, Repeatable (CPR) method for quantity documentation will meet the needs of all of our customers, from design through construction.

If you have any questions, please contact the appropriate person(s) below:

CADD: Denise Broom, 850-245-1607, or Jimmie Prow, 850-245-1626

Estimates: Melissa Hollis, 850-414-4182

Roadway Design: Chester Henson, 850-414-4117

Structures Design: Cheryl Hudson, 850-414-5332

Construction: Richard Massey, 850-414-4184